Automation using Python

Automation script which accept directory name from user and display all names & checksum of files from that directory.
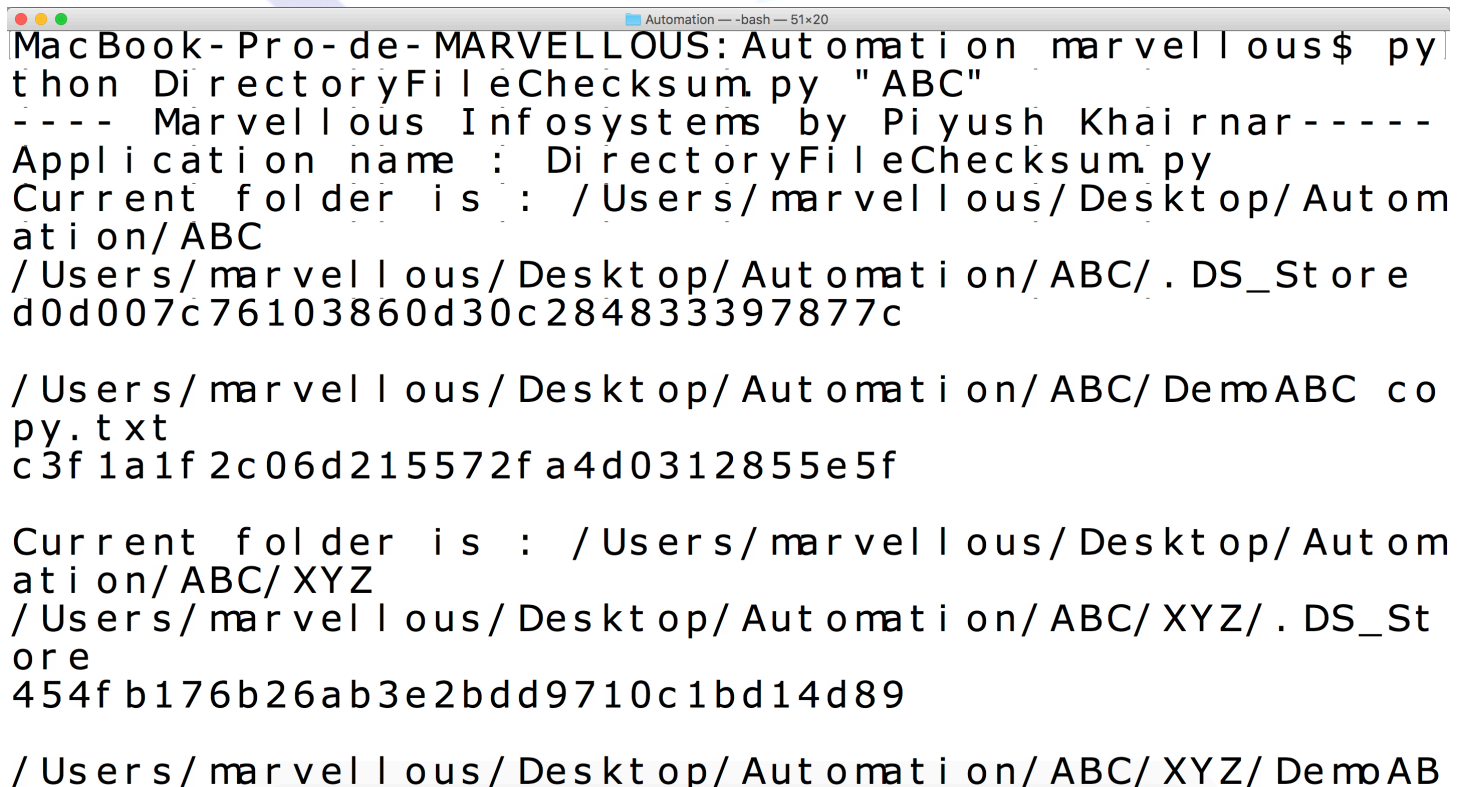
```python
1  from sys import *
2  import os
3  import hashlib
4
5  def hashfile(path, blocksize = 1024):
6      afile = open(path, 'rb')
7      hasher = hashlib.md5()
8      buf = afile.read(blocksize)
9      while len(buf) > 0:
10         hasher.update(buf)
11         buf = afile.read(blocksize)
12     afile.close()
13     return hasher.hexdigest()
14
15 def DisplayChecksum(path):
16     flag = os.path.isabs(path)
17     if flag == False:
18         path = os.path.abspath(path)
19
20     exists = os.path.isdir(path)
21
22     if exists:
23         for dirName, subdirs, fileList in os.walk(path):
24             print("Current folder is : "+dirName)
25             for filen in fileList:
26                 path = os.path.join(dirName, filen)
27                 file_hash = hashfile(path)
29         print("Error : Invalid number of arguments")
30         exit()
31
32     if (argv[1] == "-h") or (argv[1] == "-H"):
33         print("This Script is used to traverse specific directory")
34         exit()
35
36     if (argv[1] == "-u") or (argv[1] == "-U"):
37         print("usage : ApplicationName AbsolutePath_of_Directory")
38         exit()
39
40     try:
41         DirectoryWatcher(argv[1])
42
43     except ValueError:
44         print("Error : Invalid datatype of input")
45
46     except Exception:
47         print("Error : Invalid input")
48
49 if __name__ == "__main__":
50     main()
51
```

```
28                    print(path)
29                    print(file_hash)
30                    print(' ')
31            else:
32                print("Invalid Path")
33
34    def main():
35        print("---- Marvellous Infosystems by Piyush Khairnar-----")
36
37        print("Application name : " +argv[0])
38
39        if (len(argv) != 2):
40            print("Error : Invalid number of arguments")
41            exit()
42
43        if (argv[1] == "-h") or (argv[1] == "-H"):
44            print("This Script is used to traverse specific directory and display checksum of files")
45            exit()
46
47        if (argv[1] == "-u") or (argv[1] == "-U"):
48            print("usage : ApplicationName AbsolutePath_of_Directory Extention")
49            exit()
50
51        try:
52            arr = DisplayChecksum(argv[1])
53
54        except ValueError:
55            print("Error : Invalid datatype of input")
56
57        except Exception as E:
58            print("Error : Invalid input",E)
59
60    if __name__ == "__main__":
61        main()
62
```

Output of above script

```
MacBook-Pro-de-MARVELLOUS:Automation marvellous$ py
thon DirectoryFileChecksum.py "ABC"
---- Marvellous Infosystems by Piyush Khairnar-----
Application name : DirectoryFileChecksum.py
Current folder is : /Users/marvellous/Desktop/Autom
ation/ABC
/Users/marvellous/Desktop/Automation/ABC/.DS_Store
d0d007c76103860d30c284833397877c

/Users/marvellous/Desktop/Automation/ABC/DemoABC co
py.txt
c3f1a1f2c06d215572fa4d0312855e5f

Current folder is : /Users/marvellous/Desktop/Autom
ation/ABC/XYZ
/Users/marvellous/Desktop/Automation/ABC/XYZ/.DS_St
ore
454fb176b26ab3e2bdd9710c1bd14d89

/Users/marvellous/Desktop/Automation/ABC/XYZ/DemoAB
```